

CLAIMS

1. A method of screening or testing for candidate anti-fungal compounds that impair ATP(CTP):tRNA nucleotidyltransferase enzyme (CCA1) function, comprising:
- 5 a) providing fungal CCA1;
- b) providing one or more candidate compounds;
- c) contacting said CCA1 with said one or more candidate compounds; and
- d) determining the interaction of the candidate compound with said CCA1.
- 10 2. A method according to claim 1 wherein the CCA1 comprises a fragment, a function-conservative variant, an active fragment or a fusion protein of CCA1.
3. A method according to any one of claims 1 or 2, wherein the fungal CCA1 is from fungus of *Candida* or *Aspergillus* species.
- 15 4. A modified eukaryotic cell(s) wherein the cell(s) expresses fungal CCA1 under the control of a heterologous promoter.
5. The cell according to claim 4 which is a *C. albicans* cell.
- 20 6. The cell according to any one of claims 4 or 5, wherein the CCA1 is homologous.
7. The cell according to any one of claims 4 to 5, wherein the CCA1 comprises a fragment, a function-conservative variant, an active fragment or a fusion protein of CCA1.
- 25 8. A method of screening or testing for candidate anti-fungal compounds that impair ATP(CTP):tRNA nucleotidyltransferase enzyme (CCA1) function, comprising:
- a) providing fungal CCA1 in a eukaryotic cell(s) as defined in any one of claims 4 to 7;
- b) providing one or more candidate compounds;
- 30 c) contacting said eukaryotic cell(s) with said one or more candidate compounds; and
- d) determining the interaction of the candidate compound with said CCA1 by assessing the effect on growth or viability of said cells.
9. A compound identified by the method of claims 1, 2, 3 or 8, which impairs CCA1 function for use as an antifungal compound.
- 35 10. A pharmaceutical composition comprising a CCA1 inhibitor and a pharmaceutically acceptable carrier.
- 40 11. *Candida* or *Aspergillus* CCA1 as a specific target for antifungal compounds.
12. The use of a CCA1 inhibitor, in the manufacture of a medicament for the treatment of fungal infections.
- 45 13. The use of a CCA1 inhibitor, in the manufacture of a medicament for the treatment of fungal infections in a subject who is immunosuppressed.

14. The use according to claim 12 or 13 wherein the fungal infection is a topical, mucosal or systemic fungal infection.
- 5 15. - The use according to claim 14 wherein the topical or mucosal fungal infection is caused by species of *Candida* or the systemic fungal infection is caused by species of *Candida* or *Aspergillus*.
16. The use according to any one of claims 12 to 15 wherein said compound impairs fungal CCA1 function to a greater extent than host CCA1 function.